

Amendments to the Claims:

Claims 1 and 4-28 are pending in this application. These claims have been reproduced below for the Examiner's convenience.

1 1. (previously presented) A method of queuing calls to a subscriber
2 of queuing services accessed through a subscriber line, the method comprising:
3 provisioning Call Forward on Busy Line on the subscriber line to
4 permit detecting a call to the subscriber line at a local switch connected to the
5 subscriber line;
6 if the subscriber line is busy, forwarding the call to an intelligent
7 peripheral within an Advanced Intelligent Network (AIN) telecommunications
8 system;
9 queuing the call to the subscriber in the intelligent peripheral;
10 determining that the subscriber line is not busy; and
11 if a call is queued in the intelligent peripheral and the subscriber line
12 is determined to be not busy, connecting the call to the subscriber with the subscriber
13 line.

1 2. (canceled) .

1 3. (canceled) .

1 4. (original) A method of queuing calls as in claim 1 wherein queuing
2 the call to the subscriber comprises forwarding the subscriber line call to a Direct
3 Inward Dial telephone number on the intelligent peripheral.

1 5. (original) A method of queuing calls as in claim 1 wherein
2 determining that the subscriber line is not busy comprises setting a Next Event List
3 at the subscriber local switch.

1 6. (previously presented) A method of queuing calls as in claim 1
2 wherein determining that the subscriber line is not busy comprises:
3 dialing the subscriber line from the intelligent peripheral; and
4 determining that the subscriber line is busy if the local switch calls the
5 intelligent peripheral in response to the call to the subscriber line from the intelligent
6 peripheral.

1 7. (original) A method of queuing calls as in claim 1 further
2 comprising
3 determining that the call to the subscriber has been queued for a
4 determined amount of time;
5 requesting that a caller placing the call to the subscriber perform an
6 action to remain in queue; and
7 if the caller does not perform the requested action, dequeuing the call.

1 8. (original) A method of queuing calls as in claim 1 further
2 comprising:
3 receiving a plurality of calls to access the subscriber line;
4 placing each received call in the queue associated with the subscriber
5 line if the subscriber line is busy;
6 collecting queue utilization information about each queued call; and
7 generating queue utilization statistics based on the collected queue
8 utilization information.

1 9. (original) A method of queuing calls as in claim 1 further
2 comprising placing a call from the intelligent peripheral indicating status of the
3 queued subscriber line call to the subscriber.

1 10. (original) A method of queuing calls as in claim 1 wherein the
2 intelligent peripheral is a switchless intelligent peripheral.

1 11. (original) A system for queuing subscriber calls within an
2 Advanced Intelligent Network (AIN) telecommunications system, each subscriber call
3 placed by a caller to a subscriber line, the system comprising:

4 a local switch servicing the subscriber line, the local switch including
5 Call Forward on Busy Line functionality provisioned on the subscriber line, the Call
6 Forward on Busy Line functionality forwarding any subscriber call received for the
7 subscriber line when the subscriber line is busy; and

8 an intelligent peripheral within the AIN system operative to:

- 9 (a) receive any forwarded subscriber call from the local switch;
10 (b) if queue slots are available in the intelligent peripheral, queue
11 the received subscriber call;
12 (c) place a busy check call to the subscriber line;
13 (d) drop the busy check call if the busy check call is forwarded
14 back to the intelligent peripheral from the local switch; and
15 (e) connect a queued subscriber call to the busy check call if the
16 subscriber line is not busy.

1 12. (original) A system for queuing subscriber calls as in claim 11
2 further comprising a service control point in communication with the intelligent
3 peripheral, the service control point determining if queue slots are available in the
4 intelligent peripheral.

1 13. (original) A system for queuing subscriber calls as in claim 12
2 further comprising a messaging system, the service control point instructing the
3 intelligent peripheral to dial the number of the messaging system and to bridge the
4 received subscriber call to the messaging system call if the service control point
5 determines no queue slots are available.

1 14. (original) A system for queuing subscriber calls as in claim 12
2 wherein the service control point instructs the intelligent peripheral to play a message
3 to the received subscriber call if the service control point determines no queue slots
4 are available.

1 15. (original) A system for queuing subscriber calls as in claim 11
2 wherein the intelligent peripheral is further operative to request that the caller
3 perform an action to remain in queue after determining that the subscriber call has
4 been queued for a determined amount of time and, if the caller does not perform the
5 requested action, to dequeue the call.

1 16. (original) A system for queuing subscriber calls as in claim 11
2 further comprising:
3 a plurality of intelligent peripherals, each intelligent peripheral
4 implementing at least one call queue, each call queue associated with one of a
5 plurality of subscribers;
6 at least one service control point, each intelligent peripheral in
7 communication with one service control point collecting information about each
8 queued call; and
9 a data server in communication with the at least one service control
10 point, the data server aggregating queue utilization data for each subscriber.

1 17. (original) A system for queuing subscriber calls as in claim 16
2 further comprising at least one data distributor, each data distributor in
3 communication with a service control point and the data server, each data distributor
4 receiving information about each queued call from the service control point and
5 periodically forwarding the information to the data server.

1 18. (original) A system for queuing subscriber calls as in claim 16
2 further comprising a data publishing platform in communication with the data server,

3 the data publishing platform aggregating subscriber queue utilization data across a
4 plurality of report periods.

1 19. (original) A system for queuing subscriber calls as in claim 11
2 wherein the intelligent peripheral is further operative to place a status call providing
3 status information to the subscriber about at least one queued call.

1 20. (original) A system for queuing subscriber calls as in claim 11
2 wherein the intelligent peripheral is a switchless intelligent peripheral.

1 21. (original) A method for queuing subscriber calls comprising:
2 provisioning a subscriber line with Call Forward on Busy Line
3 functionality at a local switch servicing the subscriber line;
4 receiving a subscriber call destined for the subscriber line at the local
5 switch;
6 if the subscriber line is busy, forwarding the received call to a Direct
7 Inward Dial telephone number on an intelligent peripheral via the Call Forward on
8 Busy Line functionality;
9 receiving the forwarded call at the intelligent peripheral; and
10 queuing the forwarded call at the intelligent peripheral if the intelligent
11 peripheral has at lease one available queue slot.

1 22. (original) A method for queuing subscriber calls as in claim 21
2 further comprising calling a messaging service from the intelligent peripheral if the
3 intelligent peripheral has no available queue slots and bridging the forwarded call
4 with the messaging service call.

1 23. (original) A method for queuing subscriber calls as in claim 21
2 further comprising playing a message from the intelligent peripheral if the intelligent
3 peripheral has no available queue slots.

1 24. (original) A method for queuing subscriber calls as in claim 21
2 further comprising playing a message from the intelligent peripheral to the forwarded
3 call when queuing the forwarded call.

1 25. (original) A method for queuing subscriber calls as in claim 21
2 further comprising:
3 determining that the subscriber call has been queued for a determined
4 amount of time;
5 requesting that a caller placing the subscriber call perform an action
6 to remain in queue; and
7 if the caller does not perform the requested action, dequeuing the call.

1 26. (original) A method for queuing subscriber calls as in claim 21
2 further comprising:
3 receiving a plurality of subscriber calls to access the subscriber line;
4 placing each received call in the queue associated with the subscriber
5 line if the subscriber line is busy;
6 collecting queue utilization information about each queued call; and
7 generating queue utilization statistics based on the collected queue
8 utilization information.

1 27. (original) A method for queuing subscriber calls as in claim 21
2 further comprising placing a call from the intelligent peripheral indicating status of
3 the queued subscriber call.

1 28. (original) A method for queuing subscriber calls comprising:
2 queuing at least one subscriber call in an intelligent peripheral;
3 placing a busy check call from the intelligent peripheral to a subscriber
4 line;

5 receiving the busy check call in a local switch servicing the subscriber
6 line;
7 if the subscriber line is busy, forwarding the busy check call back to
8 the intelligent peripheral through Call Forward on Busy Line functionality
9 implemented in the local switch;
10 disconnecting the busy check call if the intelligent peripheral receives
11 back the forwarded busy check call; and
12 connecting a queued subscriber call with the busy check call if the
13 subscriber line is not busy.